Troubleshooting Tree for Panoramic Roof

For panoramic roofs (CL203 and W211 with and without solar roof)

Noise analyses and the most important repair jobs including the associated damage codes and chassis numbers (VIN)

Supplementary documents:
The CD "Service work on panoramic roof in **Mercedes-Benz CL203"**

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Please use this page for any suggestions and amendments you may have for the panoramic roof troubleshooting tree.
Return by fax to +49 7031-90-79499

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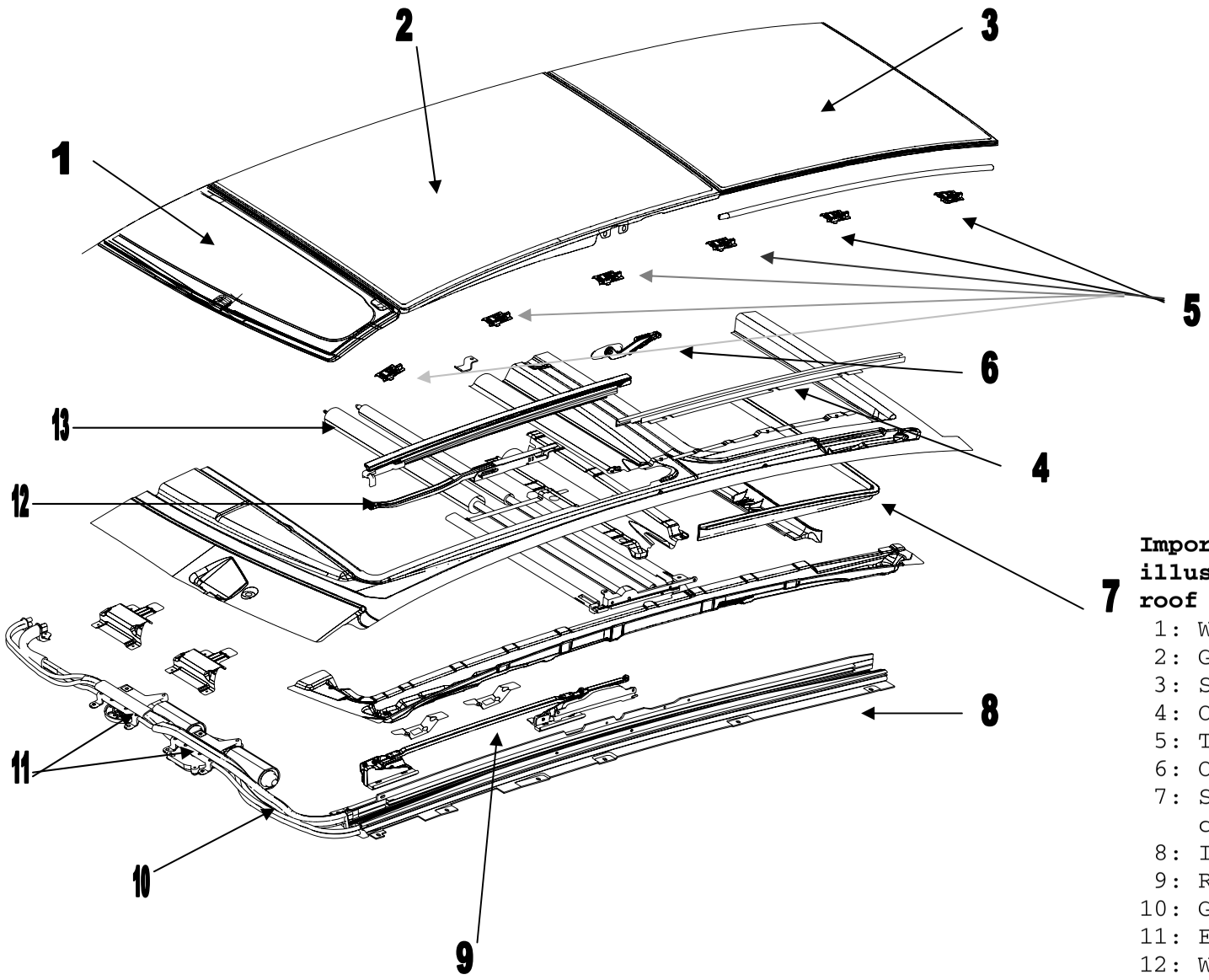

Important assemblies and parts illustrated on the panoramic roof in model CL203

1: Wind deflector lamella
2: Glass panel
3: Stationary glass section
4: Outer guide rail
5: Trim strip clips
6: Outer support
7: Stationary glass section covering
8: Inner guide rail
9: Roof mechanism
10: Guide tube
11: Electric drives
12: Wind deflector mechanism
13: Front/rear roller blinds

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1 Noises while driving

1.1 Noises regardless of position of roof/roller blind

1.1.1 On rough roads

1.1.1.1 Roof panel fastening loose (CL203 & W211)

Cause: Bolts fastening roof panel loose.

Action: Tighten all bolts on roof panel.

Damage code: 78130-GC

Remark: The roof panel is fastened with 6 bolts on each side. The rear mounting bolts on the inside can be reached more easily if you move the roof to the tilt position. The best way to reach the front mounting bolts on the inside is to open the roof approx. 50 mm. Then it is not necessary to remove the inner lining (bellows).

After removing the outer support covering on the side of the roof panel, the two bolts for the outer support are easily accessible.

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1.1.1.2 Cable of electric drive knocking on overhead control panel (CL203 only)

Cause: In vehicles produced prior to 08/2003, noises may be produced between the electric drive cable and the overhead control panel.

Action: Remove overhead control panel and wrap cable of electric drives with fabric tape.

Damage code: 59228-22 or 59230-22

Remark: Felt tape can be used as an alternative.

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1.1.1.3 Rear stationary glass section covering touching the glass (W211 only)

Cause: In solar vehicles especially, a noise may be heard from the rear, straight covering under vibrations from the road. The ends of the covering touch the glass or the film that covers the solar cells.

Action: Remove covering and stick additional fabric or flannel tape onto the stationary glass section between the existing tape and the Dualock fastener.

Damage code: 78188-GC

Remark: The covering is best removed using a plastic wedge. First pull the front edge downwards. This releases the Dualock fasteners in the corners and the front clip at y = 0. Then pull the covering forwards in order to release the three remaining clips.

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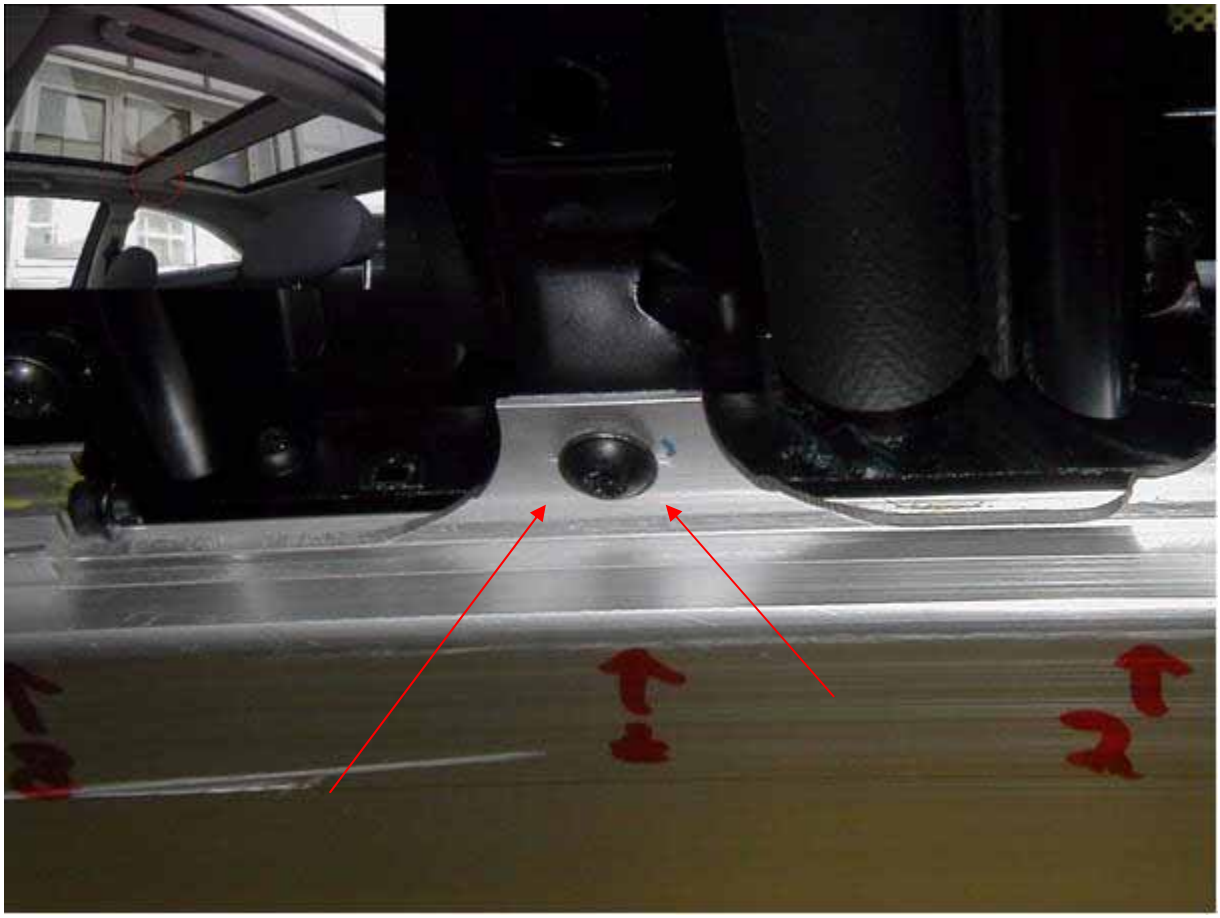
1.1.1.4 Mounting bolt between guide rail and frame makes cracking noise in area of roller blind (CL203)

Cause: Over time the threaded connection fastening the guide rail to the frame can settle and then make noises on rough roads or when the vehicle is subjected to torsion.

Action: Retighten bolt or replace bolt with an M5 thin panel bolt (A 008 990 46 04) and tighten to a torque of 3 Nm.

Damage code: 78166-GC

Remark: The M5 thin panel bold can be used at any point on the CL203 where an M4 bolt was installed at the factory. This increases the strength of the threaded connection by approx. 80 %.



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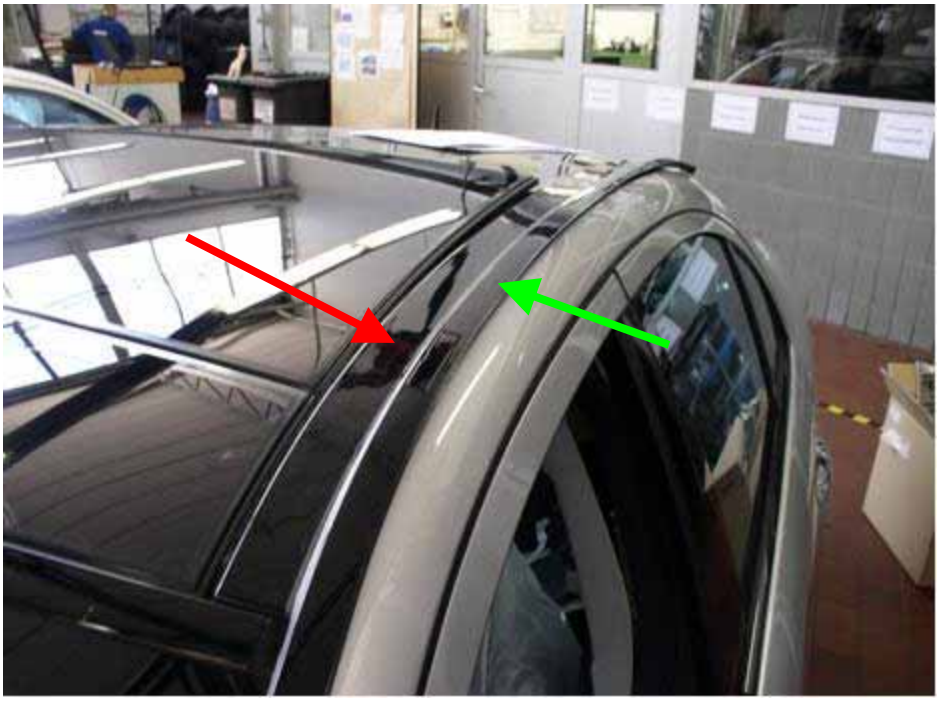
1.1.1.5 Noises between trim strip and water deflector (W211 only)

Cause: Side trim strip (red arrow) touches water deflector (green arrow). The point can be located by lifting the small sealing lip on the water deflector.

Action: Remove water deflector and side trim strip, slacken mounting nut on trim strip clip and position the clips slightly further out. Retighten mounting nut (2.5 Nm). Reinstall trim strip and water deflector.

Damage code: 69259-GC

Remark: Do not move the clips too far out. If the trim strip clips are set too far out, there will be a visible gap between the water deflector and the trim strip.



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1.2 Noises with roof panel closed and roller blind rolled up

1.2.1 On rough roads

1.2.1.1 Noise between wind deflector seal and wind deflector lamella (CL203 & W211), see also AF77.20-P-1003AG

Cause: Dirt between seal and wind deflector-

Action: Lift seal using a plastic wedge and clean. Then oil with antifriction oil (part no.: 001 989 50 51).

Damage code: 67004-GA

Remark: The noise may also occur when the glass panel is opened and closed.

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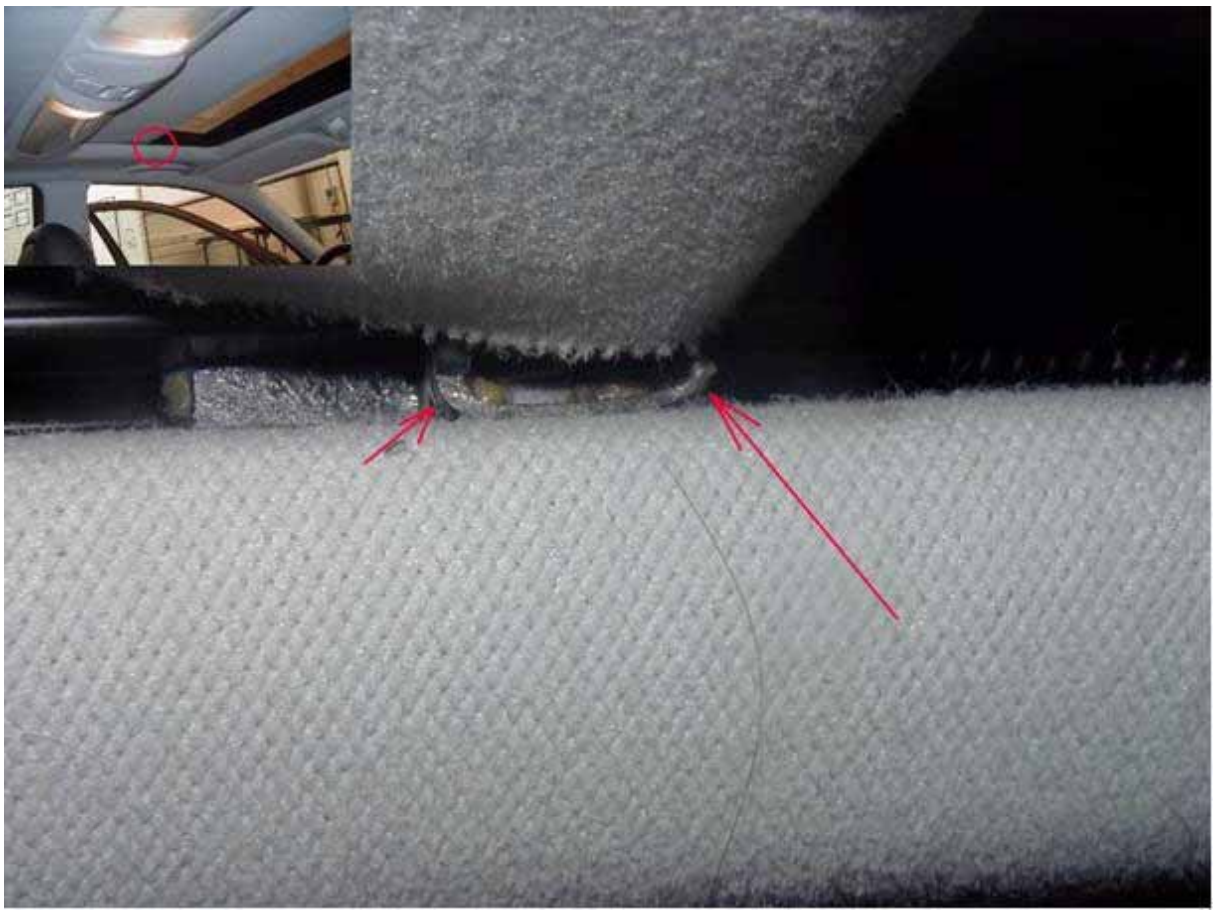
1.2.1.2 Noise between roller blind clutch and guide rail (W211 only)

Cause: Front roller blind clutch not sufficiently greased.

Action: Grease flange of inner guide rail on which the front roller blind clutch rests.

Damage code: 78120-GC

Remark: The noise does not occur when the roller blind is unrolled. The noise does not occur when the roof bow is held. Small quantities of grease are sufficient to eliminate the noise.



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1.2.1.3 Noise between seal under wind deflector lamella and wind deflector lamella (W211 only)

Cause: A dirty seal causes noises on the cataphoretic immersion primed panel of the wind deflector lamella.

Action: Clean seal and grease if necessary.

Damage code: 78129-GC

Remark: The seal is only present on vehicles produced prior to 12/2003. On older vehicles the seal can also be removed entirely.

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1.2.1.4 Noise between seal above roller blind and glass panel (W211 only)

Cause: A dirty seal causes noises on the cataphoretic immersion primed panel of the glass roof panel.

Action: The noise can be reliably eliminated by greasing the seal or by applying black fabric tape on the cataphoretic immersion primed panel of the glass roof panel.

Damage code: 78130-GC

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1.2.1.5 Noise between cam of stationary glass section and glass panel (CL203 & W211), see also AF77.20-P-1005AG

Cause: Glass panel touches the cam.

Action: Stick lining (A203 783 01 97) on cam of stationary glass section. Move panel of modular roof to tilt position. Clean the cam (top and sides) carefully with nitro thinner. Remove protective foil from velvet tape and stick velvet tape centrally on cam. The entire PU surface must be covered. Push the protruding edges of the velvet tape under the cam using a spatula and press the velvet tape down firmly

Damage code: 78130-GC

Remark: Sticking on the lining is a much longer-lasting remedy than the remedial action ("Oil cams") indicated on the Service CD for the CL 203.

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1.2.2 Wind noises at high speed (freeway)

1.2.2.1 Seal on wind deflector lamella not cleanly clamped (W211 only)

Cause: The sealing section (see arrow) on the front edge of the wind deflector lamella is not cleanly clamped under the transverse trim strip between the windshield and the wind deflector lamella.

Action: Remove transverse trim strip, reposition seal cleanly (fix in place temporarily if necessary) and reinstall transverse trim strip.

Damage code: 67004-39

Remark: The seal on the wind deflector lamella can be seen when the roof is open. It covers the bodyshell in the gap between the lamella and the trim strip when the roof is in this position. Take care that the clips do not shear off when the transverse trim strip is removed.

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1.3 Noises with roof panel in tilt position

1.3.1 On rough roads

1.3.1.1 Arms of wind deflector mechanism bent (CL203 & W211)

Cause: The arms of the wind deflector mechanism, with which the roof panel presses down the wind deflector lamella when the roof is closed, are bent.

Action: Replace parts or bend back into shape.

Damage code: 78119-IA

1.4 Noises with roof panel open

We are not aware of any cases to date

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2 Noises with vehicle stationary

2.1 When moving the roof

2.1.1 Scratching and squeaking noises when roof is moving (CL203 & W211), see also AF77.20-P-1005AG

Cause: Over the service life of the vehicle, dirt can lead to stiffness and/or noises when the roof panel moves.

Action: With the roof open, wipe out inside of mechanism with a cloth and then apply grease (part no.: 001 989 46 51).

With the roof closed, clean outer guide rail with a steam cleaner and then oil using a thin brush (part no.: 001 989 46 51). Move roof panel to tilt position and oil sliders of outer guide rail.

Damage code: 78166-GA

Remark: On no account should the outer guide be greased because dust and dirt adheres easily to the grease and will very quickly lead to more malfunctions.

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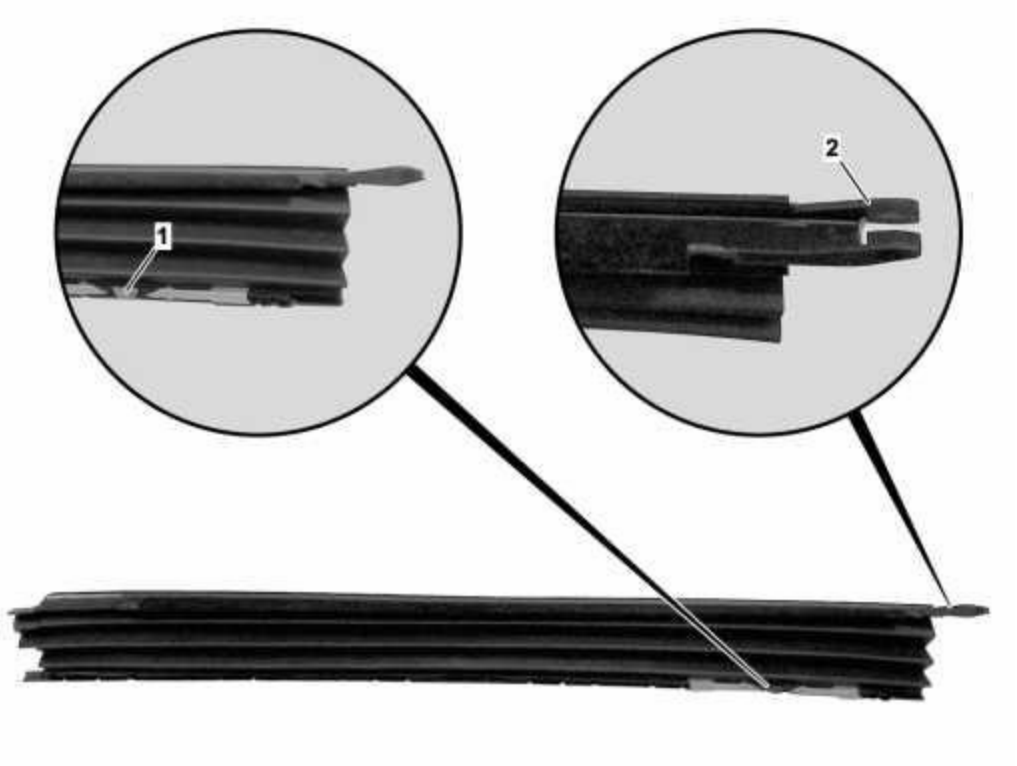
2.1.2 **Squeaking noises from area of bellows and bellows rail when roof panel is moving (CL203 & W211), see also AF77.20-P-1004AG**

Cause: Depending on the amount of dirt, annoying squeaking noises may occur from the area between the bellows and the bellows rail.

Action: Remove bellows bearing. With the roof open, pull bellows out forwards and grease running surfaces (2) of bellows.

Damage code: 78111-GA

Remark: It is usually sufficient to grease the bellows rail a little and then operate the roof a few times. This makes it unnecessary to remove the bellows.



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2.2 When closing the doors (head pressure)

2.2.1 Roller blind makes noises (CL203 & W211)

Cause: On early vehicles there may be whirring/rattling noises from inside the roller blind. This mostly occurs when the roller blind is in the rolled-up position. The noises come from the area above the interior protection sensor.

Action: Replace roller blind.

Damage code: 78182-GA

Remark: Before replacing the roller blind, make absolutely sure that the noise is not being caused by the interior protection sensor.

2.3 When moving the roller blind

2.3.1 Thread of screw for front roller blind clutch (W211 only)

Cause: The front roller blind clutch has an adjustment screw for positioning the front roller blind in the x-direction. The end of the thread on this screw touches the end of the front roller blind cable. Noises may occur between these two parts when the roller blind is operated. When the noise occurs, the roller blind twitches once as it unrolls.

Action: After unclipping the front roller blind from the roller blind clutch, the roller blind clutches can be pulled out of the rail (towards the center of the car). Unscrew the bolts for the clutch as far as possible or, better still, remove them entirely. Reinsert clutches into the rail and clip the roller blind back in.

Damage code: 78120-GA

Remark: This fault should only be expected in vehicles produced prior to 15.03.2002 and production no. 800250.

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3 Malfunctions

3.1 Roller blind does not open/close (CL203 & W211)

3.1.1 Lines or connectors detached/damaged

Cause: Motor/overhead control panel connector has become detached while driving.

Action: Remove overhead control panel and check line and connectors.

Damage code: 59230-74

3.1.2 Overhead control panel defective or has lost normalization settings.

Cause: If an undervoltage occurs, the OCP may lose its normalization settings.

Action: Renormalize overhead control panel (see operator's manual)

Damage code: 82302-52

Remark: Important: Normalization is different for different model series. Refer to the documentation in the operator's manual.

3.2 Roof panel does not open/close (CL203 & W211)

3.2.1 Lines or connectors detached/damaged

Cause: Motor/overhead control panel connector has become detached while driving.

Action: Remove overhead control panel and check line and connectors.

Damage code: 59230-74

3.2.2 Overhead control panel defective or has lost normalization settings.

Cause: If an undervoltage occurs, the OCP may lose its normalization settings.

Action: Renormalize overhead control panel (see operator's manual)

Damage code: 82302-52

Remark: Important: Normalization is different for different model series. Refer to the documentation in the operator's manual.

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4 Leakage

4.1 Water ingress at glass panel

We are not aware of any cases to date

4.2 Water ingress in area of sun visor/OCP

4.2.1 Leakage due to bodyshell (W211 only)

Causes: The seam seal (1) on the front roof frame cross piece is faulty / has holes.

or

The rubber grommet (2) for sealing the front roof frame cross piece below the panoramic roof frame is faulty / is incorrectly installed.

Action: Touch up seam seal with suitable sealing materials.
If this does not remedy the problem, check rubber grommet and replace if necessary.

Damage code: 65002-04 or 65002-76

Remark: The panoramic roof must be removed in order to check/replace the rubber grommet (front left and right).

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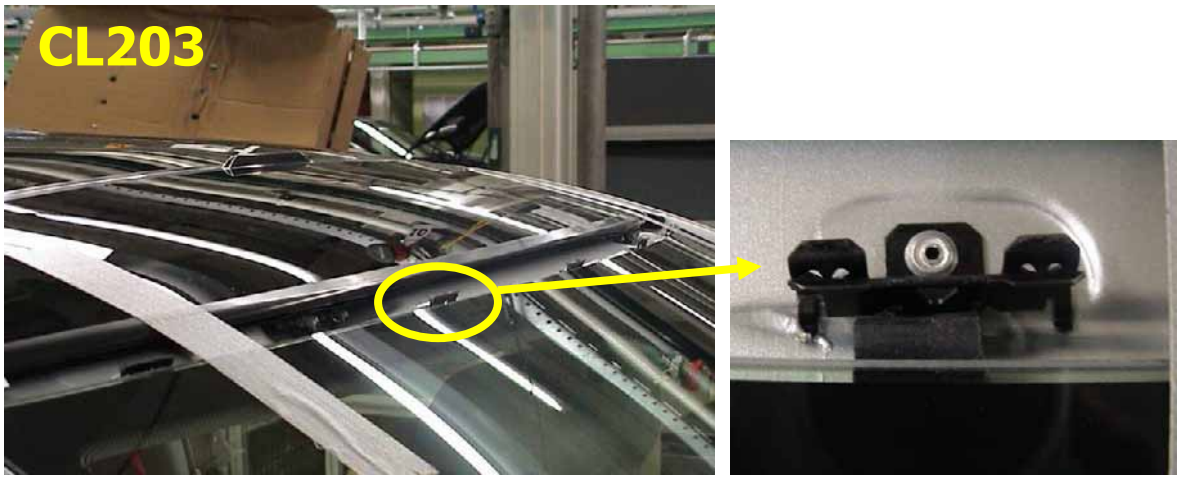
4.2.2 **Leakage due to windshield trim strip clips (CL203 & W211)**

Cause: The riveted retaining clips for the windshield trim strip on the front roof frame no longer provide a proper seal with the bodyshell.

Action: Remove clips and then seal the rivet holes with suitable sealing materials. Then re-rivet the clips.

Damage code: 67004-38

Remark: A loose clip is not necessarily leaky. On the W211 it is generally necessary to remove the windshield in order to rivet the clips.



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